A Brief Introduction of My Intelligence Studies

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□□□ potentially a meta-solution to any problem□

□ Microsoft □ chatbot Tay □□□□□□□□□□□□□□□□□□□□□□□□□Softbank □ robot Pepper □□□□□□ Google □ LaMDA □ Meta □ BlenderBot 3 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□Word-embedding vector space □□□□□□□

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I study free will, language intelligence, scientific logic, causation, judgement, etc. Studies of highly unstable human intelligence requires better definitions of sciences and scientific methods.

Scientific logic is related to high-order logic and human intelligence structures. Based on my new theories of scientific logic and intelligence, I design tests and experiments of artificial intelligence (AI).

Mathematical logic and philosophical logic could not understand free will and human intelligence, especially due to that people have to use multiple world models in daily life and scientific research.

In sciences, people are not able to unify classic physics and quantum physics so far, and not able to unify physics sciences and life sciences, physics sciences and intelligence sciences, life sciences and intelligence sciences, etc.

People have to use multiple world models, which suggests severe problems in logic, causation, and judgement, especially in automation systems.

BRAIN Initiative project cannot study the scientific principles behind brain and human intelligence due to multiple world models, etc. The selfish gene theory is wrong. Metaphysics from human does not work.

Non-Euclidean geometry, Gödel's incompleteness theorems, and Gödel's criticism of logical positivism or logical empiricism, provide certain clues what roles free will plays in human intelligence.

Gödel's incompleteness theorems indicate there are problems in the foundation of mathematics. Mathematics even cannot calculate some important issues in Hilbert space.

The forming, developing, evolving, and correct judging of the semantics of human languages are even more complicated. Universal Approximation Theorem and word-embedding vector space are inadequate to handle such complexity.

I developed some theories of logic and causation to study free will and human intelligence structures. The Law of Excluded Middle is not a universal law. However, it plays an important role in scientific research. People only can falsify theories in sciences. Only at the critical points where the Law of Excluded Middle is valid, falsifying is also proving.

My scientific logic theories are very different from various existing intermediate logics.

Gödel's incompleteness theorems suggest high-order logic must contain informal logic. Although my theories provide concrete bases only at certain critical points, they are very valuable for designing scientific experiments and AI tests.

AI testing is closely related to language intelligence, high-order logic, causation and judgement. Turing Test and current tests of driverless cars are invalid. There are problems in SAE level 4 definition and verification. Better definitions and testing

methods based on scientific principles are needed.

However, I suggest to start with simple systems. Here is the brief introduction of the first phase of my research plan:

1. A survey of current brain researches;

2. A survey of current computer language processing;

3. Do experiments with the most advanced computer language processing systems.

4. Based on my existing theories and the studies in 1), 2), 3), further study what mechanism free will could achieve.

I will only be one of the participants in studies 1) and 2), but with my own emphases on certain specific issues. In studies 3) and 4), I will be the main researcher.

After this phase, other people could study whether these free will mechanisms could be implemented in computers or not.

The definition of SAE level 5 is simple, but the testing is even more complicated.

Theoretically if people could develop humanoid robots with full human intelligence, then SAE level 5 would be achieved. However, developing and testing humanoid robots with full human intelligence is even more difficult, most likely impossible.

The most difficult problems are that human intelligence models would evolve unstably. So, structurally we need very different new testing methods to evaluate driving automation.

After finishing my first phase research, I could study the problems in the definitions and testing of SAE level 4 and level 5. At that time, I even might be able to show you the evidences of human intelligence models evolving unstably which cause the failures of SAE level 4 and level 5.

Regarding free will and human intelligence structures, nothing significant in recent 80 years. So a tiny progress should be highly valuable.

Slavery does not work in new sciences because it damages free will. AI is far from a meta-solution because it lacks free will.